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(54) Title: SYSTEM AND METHOD OPERATING AS AN AGENCY FOR ENABLING REGISTRATION AND LOGIN
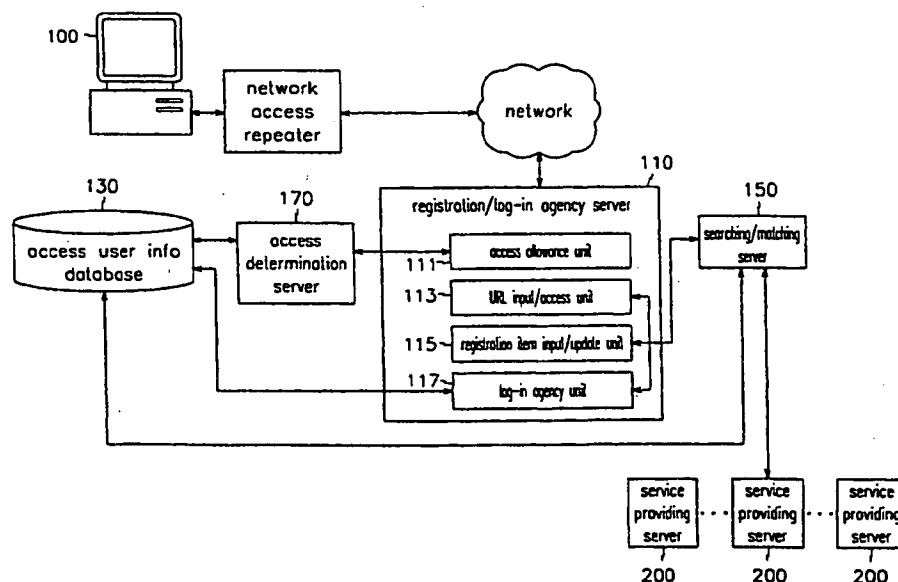
(57) Abstract: Disclosed is a system operating as an agency for enabling registration and login which comprises a registration/login agency server for setting an address of a service providing module by a network access user; an access user information database for storing registration contents including IDs and passwords for logging in to the service-providing module needed for registering to the service-providing module; and a searching and matching server for accessing the service-providing module, searching registration

System and Method Operating as an Agency for Enabling Registration and Login

5   **BACKGROUND OF THE INVENTION**

(a) Field of the Invention

The present invention relates to a system and method for registering

and logging in to a web site. More specifically, the present invention relates

to a system and method operating as an agency for enabling network access

10   users to concurrently register on a plurality of web sites and log in to the

same.

(b) Description of the Related Art

Developments of the Internet that connects computers all over the

world help to overcome time and spatial limits between persons. Further, the

15   Internet enables people to share their own information with others, thereby

creating various synergy effects.

Therefore, a plurality of web sites that provide various services and

information to network access users or generate relations between them

have been built, and network access users register on desired web sites and

20   log in to them so as to use desired services or information.

However, since the network access users must access desired web

sites one by one to register or log in to them, this generates many

inconvenient courses and it is not easy for the users to manage uniform

resource locators (URL), identifications (IDs) and passwords. Also, when the

user desires to modify the user's registration items, the user must access the

web sites one by one and modify them.

SUMMARY OF THE INVENTION

5   It is an object of the present invention to provide a system and

method operating as an agency for enabling network access users to

concurrently register to a plurality of web sites and log in to the same, and to

modify registration items.

In one aspect of the present invention, in a system operating as an

10   agency for registering a network access user with desired service providers,

a registration and log-in agency system comprises: a registration and log-in

agency server for setting addresses of the service providers by the network

access user; an access user information database for storing registration

items including identifications and passwords for logging in to the service

15   providers and that are needed for registering with the service providers; and

a searching and matching server for accessing the respective service

providers, searching registration files of the service providers, inputting the

registration items to the registration files, and registering with the respective

service providers.

20   In another aspect of the present invention, in a registration and

log-in agency method for storing registration items including identifications

and passwords for service providers so as to operate as an agency for registering with service providers desired by a network access user, a registration and log-in agency method comprises: a registration and log-in agency system accessing a service provider using an address of at least one service provider input by the network access user; the registration and log-in agency system finding a registration file of the service provider; and inputting registration items of the network access user to the registration file to perform a registration process.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate an embodiment of the invention, and, together with the description, serve to explain the principles of the invention:

FIG. 1 shows a block diagram of an agency system for registration and log-in processes according to a preferred embodiment of the present invention; and

FIG. 2 shows a flowchart of an agency method for a registration and log-in process according to a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the following detailed description, only the preferred embodiment of the invention has been shown and described, simply by way of illustration of the best mode contemplated by the inventor(s) of carrying out the invention. As will be realized, the invention is capable of modification in various obvious respects, all without departing from the invention. Accordingly, the drawings and description are to be regarded as illustrative in nature, and not restrictive.

FIG. 1 shows a block diagram of an agency system for registration and log-in processes according to a preferred embodiment of the present invention.

As shown, the agency system comprises a terminal 100 for a network access user to access the network; a plurality of service-providing servers 200 for the network access user to register or log in to; a registration/log-in agency server 110; an access user information database 130; a searching and matching server 150; and an access determination server 170.

The registration/log-in agency server 110 provides information needed for an agency service of registration and log-in, and accesses a network device needed for the registration/log-in agency service according to registration and log-in items input by the network user.

The registration/log-in agency server 110 comprises an access allowance unit 111 for the network access user to register or log in to the registration/login agency server 110; a URL input and access unit 113 for the network access user to input at least one desired URL and outputting a

5   signal for accessing the input URL; a registration item input and update unit 115 for inputting registration items to a web site of the URL or updating previously input registration items; and a log-in agency unit 117 for outputting a signal for providing an agency service for logging in to the web site corresponding to the at least one URL.

10   The access user information database 130 stores access user information that includes registration/log-in IDs and passwords for the network access users to access the registration/log-in agency server 110, at least one URL that is input to the URL input and access unit 113 by the network access user, addresses of a registration web page and a log-in web

15   page of the web site corresponding to the URL, input items input to the web page of the service-providing server 200, and IDs and passwords for logging in to the service-providing server 200.

The searching and matching server 150 receives the URL and the registration items respectively from the URL input and access unit 113 and

20   the registration item input and update unit 115, accesses the service-providing server 200 of the corresponding URL, analyzes tags of hyper text

markup language (HTML) of the web page stored in the service-providing

server 200, finds the registration web page and the log-in web page, again

analyzes the tags of the HTML of the registration web page, matches and

inputs the network access user's usage history in blanks of registration items

5   of the registration web page, and stores the addresses of the registration

web page and the log-in web page in the access user information database

130.

In this instance, as to the usage of the word "match", the searching

and matching server 150 previously stores various types of IDs and

10   passwords for registration items or logging in to the service-providing server

200 so as to input the IDs and passwords to the registration web page and

the log-in web page, and in the case appropriate IDs and passwords are

found when searching the tag of the HTML, the searching and matching

server 150 inputs the appropriate ones into the blanks. For example, since

15   optional expressions of the word 'password' can be password, PASSWORD,

PW etc., the searching and matching server 150 stores these expressions

together, and when detecting one of these expressions, the searching and

matching server 150 inputs the corresponding item.

In this instance, when the network access user does not input the ID

20   and the password to the registration item input and update unit 115, the

searching and matching server 150 automatically provides the ID and the

password for logging in to the service-providing server 200 to the respective web sites so as to manage the network access user's ID and password.

Also, when there are more registration items required by the respective web sites than those previously input to the registration item input and update unit 115 by the network access user, the searching and matching server 150 notifies the network access user of this fact via the registration item input and update unit 115.

For example, when the network access user is requested to input a credit card number to the registration item input and update unit 115 so as to register to a web site, the searching and matching server 150 provides this fact to the network access user via the registration item input and update unit 115. This process is generated while the searching and matching server 150 analyzes the web page. The process of updating the registration items is identical with that of initially inputting the registration items.

When a log-in agency signal is input via the log-in agency unit 117, the searching and matching server 150 searches addresses of a log-in web page of the web site stored in the access user information database 130, accesses the corresponding log-in web page, analyzes the tags of the HTML of the log-in web page, and inputs the ID and the password for logging in to the service-providing server that are stored in the access user information database 130.

When the network access user inputs a registration/log-in ID and a password via the access allowance unit 111 so as to access the registration/log-in agency server 110, the access determination server 170 determines whether the registration/log-in ID and the password are correct,

5   and determines whether to access the registration/log-in agency server 110.

The searching and matching server 150 searches the URL input by the network access user from the access user information database 130, and when the URL is found, accesses the corresponding service-providing server 200 using the URL, and increases an access speed to the service-

10   providing server 200.

Referring to the drawings, an operation of the registration/log-in agency system according to the preferred embodiment of the present invention will be described.

FIG. 2 shows a flowchart of an agency method for a registration and

15   log-in process.

As shown in FIG. 2, the agency method comprises: accessing the registration/log-in agency server 110 in step S200; accessing a service-providing server 200 in step S210; determining a registration or a log-in in step S220; registering with the service-providing server 200 in step S230;

20   and logging in in step S240.

When a network access user who desires to receive the

registration/log-in agency service inputs the user's registration/log-in ID and password to the access allowance unit 111 of the registration/log-in agency unit 110 and the access allowance unit 111 transmits the registration/log-in ID and password, the access determination server 170 compares them with those stored in the access user information database 130 to determine whether to allow access in step S200.

When receiving the URL of the service-providing server 200 input by the network access user who is allowed to access the registration/log-in agency unit 110 from the URL input and access unit 113, the searching and matching server 150 uses the URL of the service-providing server 200 and accesses the service-providing server 200 of the corresponding URL. In this instance, when there are one or more URLs of the service-providing servers 200 input by the network access user, the searching and matching server 150 concurrently accesses the service-providing servers 200 in step S210.

The searching and matching server 150 determines whether the network access user desires a registration agency service or a log-in agency service. In this instance, when data are input to the registration item input and update unit 115, the searching and matching server 150 determines that the network access user desires the registration agency service, and when the data are input to the log-in agency unit 117, the searching and matching server 150 determines that the network access user desires the log-in

agency service in step S220.

When the network access user inputs registration items to the registration item input and update unit 115, the searching and matching server 150 analyzes the tags of the HTML of the web pages of the respective service-providing servers 200, searches the registration web page and the log-in web page, and stores the respective addresses of the registration web page and the log-in web page in the access user information database 130. After this, the searching and matching server 150 again analyzes the tags of the HTMLs of the registration web pages, finds desired registration items, and inputs the registration items of the network access user to concurrently register to the web sites selected by the network access user in step S230.

In this instance, when the network access user does not input the ID and the password for logging in to the service-providing server that are to be registered to the respective web sites, the searching and matching server 150 automatically provides IDs and passwords to the respective web sites and stores them in the access user information database 130.

When the network access user accesses the log-in agency unit 117 so as to concurrently log in to the web sites selected by the network access user, the log-in agency unit 117 searches the ID and the password for logging in to the service-providing server, and the address of the log-in web page selected by the network access user from the access user information

database 130, and transmits them to the searching and matching server 150, and the searching and matching server 150 accesses the transmitted address, analyzes the tags of the HTML of the log-in web page, and inputs the ID and the password in the ID and password blanks so that the network

5   access user concurrently accesses the service-providing servers 200 in step S240.

In this instance, the registration items to be updated are input to the registration item input and update unit 115 according to the above-described identical registration process.

10   According to the registration/log-in agency system, the network access user can conveniently register or log in to desired service-providing servers 200.

While this invention has been described in connection with what is presently considered to be the most practical and preferred embodiment, it is

15   to be understood that the invention is not limited to the disclosed embodiments, but, on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.

For example, respective units of the registration/log-in agency

20   system can be implemented in software or hardwired manners.

Accordingly, the registration/log-in agency system and method

enables the network access user to concurrently register and log in to

desired service-providing servers, and manages the registration items

including the URLs of the web sites to which the network access user is

registered, ID and passwords for logging in to the service-providing servers,

5   and accordingly increases security maintenance.

WHAT IS CLAIMED IS:

1. In a system operating as an agency for registering a network access user with desired service providers, a registration and log-in agency system comprising:

5   a registration and log-in agency server for setting addresses of the service providers by the network access user;

an access user information database for storing registration items including identifications (IDs) and passwords for logging in to the service providers and that are needed for registering with the service providers; and

10   a searching and matching server for accessing the respective service providers, searching registration files of the service providers, inputting the registration items to the registration files, and registering with the respective service providers.

2. The system of claim 1, wherein the searching and matching

15   server searches log-in files of the service providers, inputs the IDs and the passwords and logs in to the respective service providers.

3. The system of claim 1, wherein the searching and matching server searches expression language of the registration files of the service providers, finds the registration files of the respective service providers and

20   registration item blanks of the registration files, and inputs the registration items in the registration item blanks.

4. The system of claim 3, wherein the searching and matching server stores at least one expression of names of the respective registration item blanks implemented as expression language of the registration files and searches the registration item blanks, and when the registration item is found

5   to be matched with the stored one, the searching and matching server inputs a corresponding registration item to a corresponding position.

5. The system of one of claims 1 to 4, wherein the registration file and a log-in file of the service provider are respectively a service-providing web site and a registration web page.

10   6. The system of claim 3 or 4, wherein the expression language is tags of hypertext markup language (HTML).

7. The system of claim 3, wherein when the number of registration items required by the registration file is greater than those input to the registration and log-in agency server by the network access user, the

15   searching and matching server notifies the network access user to input additional required items.

8. The system of claim 1, wherein when the network access user does not establish an ID and a password for logging in to the service provider, the searching and matching server automatically provides the ID

20   and the password to each service provider and stores them in the access user information database.

9. The system of claim 1, wherein the system further comprises an access determination server for authenticating access of the network access user.

10. In a system operating as an agency for enabling a network access user to log in to desired service providers, a registration and log-in agency system comprising:

a registration and log-in agency server for setting addresses of the service providers by the network access user;

an access user information database for storing registration items including identifications (IDs) and passwords for logging in to the service providers and that are needed for logging in to the service providers; and

a searching and matching server for accessing the respective service providers, searching log-in files of the service providers, inputting the IDs and the passwords for logging in to the service providers to the log-in files, and logging in to the respective service providers.

11. The system of claim 10, wherein the searching and matching server searches registration files of the service providers, inputs the registration items and registers with the respective service providers.

12. The system of claim 10, wherein the searching and matching server searches expression language of the log-in files, finds ID and password blanks for logging in to the respective service providers, and inputs

the IDs and the passwords in the ID and password blanks.

13. The system of claim 12, wherein the searching and matching server stores at least one expression of names of the respective ID and password blanks for logging in to the service providers implemented as expression language of the log-in files and searches the ID and password blanks, and when the ID and the password are found to be matched with the stored ones, the searching and matching server inputs corresponding items to corresponding positions.

14. The system of one of claims 10 to 13, wherein the service provider and the log-in file are respectively a service-providing web site and a registration web page.

15. The system of claim 12 or 13, wherein the expression language is tags of hypertext markup language (HTML).

16. The system of claim 10, wherein when the network access user does not establish an ID and a password for logging in to the service provider, the searching and matching server automatically provides the ID and the password to each service provider and stores them in the access user information database.

17. The system of claim 10, wherein the system further comprises an access determination server for authenticating access of the network access user.

18. In a registration and log-in agency method for storing registration items including identifications (IDs) and passwords for service providers so as to operate as an agency for registering with service providers desired by a network access user, a registration and log-in agency method

5   comprising:

a registration and log-in agency system accessing a service provider using an address of at least one service provider input by the network access user;

the registration and log-in agency system finding a registration file

10   of the service provider; and

inputting registration items of the network access user to the registration file to perform a registration process.

19. The method of claim 18, wherein when desiring to update the registration items, the registration items to be modified are input to the

15   registration and log-in agency system, and the above-noted registration steps are then performed.

20. The method of claim 18, wherein the method further comprises: an access determination server determining access states of the network access user when the network access user inputs an ID and a

20   password used for registration and log-in to a registration and log-in agency server.

21. The method of claim 18, wherein the method further comprises: the registration and log-in agency system finding a log-in file provided to the service provider when the network access user desires a log-in agency service, and inputting the ID and the password for logging in to the

5   service provider to the log-in file to perform a log-in process.

22. In a registration and log-in agency method for storing registration items including identifications (IDs) and passwords for service providers so as to operate as an agency for logging in to service providers desired by a network access user, a registration and log-in agency method

10   comprising:

a registration and log-in agency system accessing a service provider using an address of the service provider;

the registration and log-in agency system finding a log-in file of the service provider; and

15   inputting the ID and the password to the registration file to perform a registration process.

23. The method of claim 22, wherein the method further comprises: the registration and log-in agency system finding a registration file provided to the service provider when the network access user desires a registration

20   agency service, and inputting the registration items to the registration file to perform a registration process.
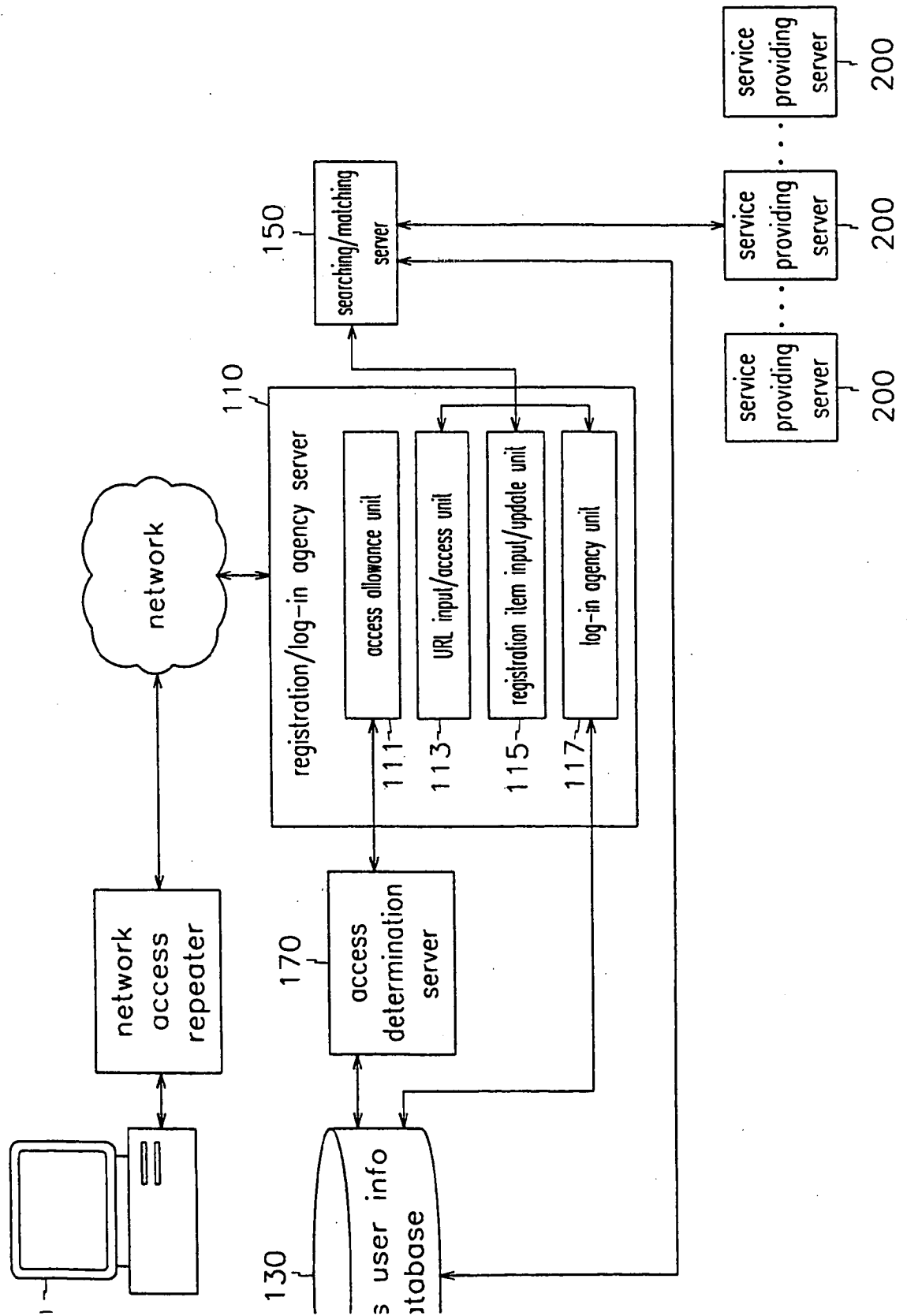
24. The method of claim 23, wherein when desiring to update the registration items, the registration items to be modified are input to the registration and log-in agency system, and the above-noted registration steps are then performed.

5   25. The method of claim 22, wherein the method further comprises: an access determination server determining access states of the network access user when the network access user inputs an ID and a password used for registration and log-in to a registration and log-in agency server.
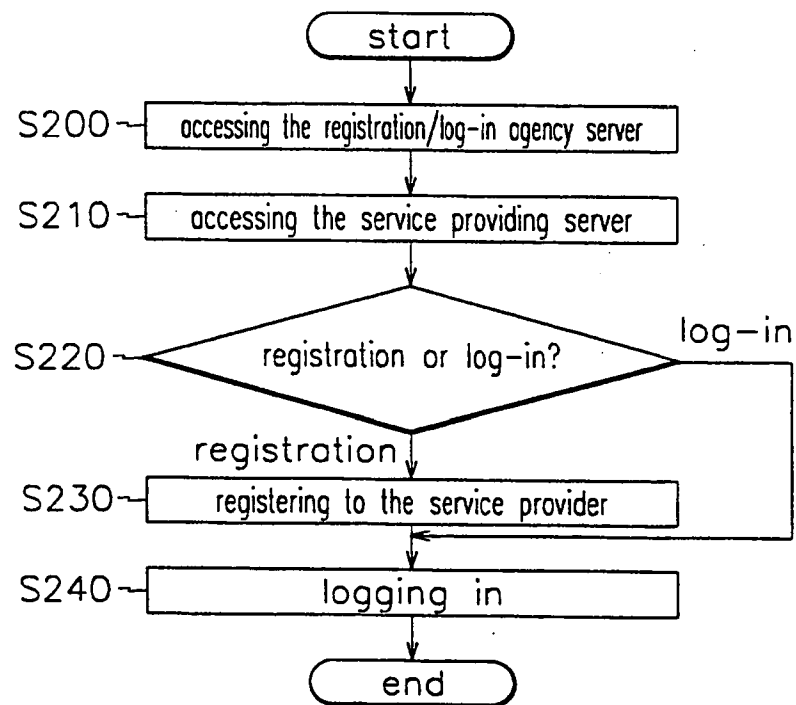
10

1/2

FIG.1

FIG.2

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                    ┌──────────────┐
                    │    start     │
                    └──────┬───────┘
                           ↓
S200 ──┤ ┌────────────────────────────────────────┐
         │ accessing the registration/log-in agency server │
         └────────────────────┬───────────────────┘
                              ↓
S210 ──┤ ┌────────────────────────────────────────┐
         │   accessing the service providing server │
         └────────────────────┬───────────────────┘
                              ↓
                        ╱─────────────╲          log-in
S220 ──┤         ╱   registration or log-in?   ╲─────────┐
                 ╲─────────────────────────────╱          │
                        registration ↓                    │
S230 ──┤ ┌────────────────────────────────────┐           │
         │   registering to the service provider │           │
         └──────────────────┬─────────────────┘           │
                            ↓←───────────────────────────┘
S240 ──┤ ┌────────────────────────────────────┐
         │           logging  in              │
         └──────────────────┬─────────────────┘
                            ↓
                    ┌──────────────┐
                    │     end      │
                    └──────────────┘
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INTERNATIONAL SEARCH REPORT

A.	CLASSIFICATION OF SUBJECT MATTER

IPC7 H04L 9/32

According to International Patent Classification (IPC) or to both national classification and IPC

B.	FIELDS SEARCHED

Minimun documentation searched (classification system followed by classification symbols)

IPC7 H04L G06F

Documentation searched other than minimun documentation to the extent that such documents are included in the fileds searched

Korean Patents and applications for inventions since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search trerms used)

PATROM, PAJ, USPAT, FPD

C.	DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 2000-0000216 A (CHOI, Sun-Jung) 15 JAN 2000 see the whole document and FIG.1	1 - 25
Y	JP 11-306139 A (NEC HOME ELECTRON LTD) 5 NOVEMBER 1999 see the abstract and FIG.3-4	1 - 25
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PA	KR 2000-0049385 A (NextMedia Technology) 5 AUG 2000 see the abstract and FIG 1 - 5	1 - 25
PA	KR 2001-0002032 A (ONEQUEUE) 15 JAN 2001 see the abstract and FIG.1	1 - 25

☐ Further documents are listed in the continuation of Box C.   ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevence	
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevence; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)	"Y" document of particular relevence; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
09 JULY 2001 (09.07.2001)	10 JULY 2001 (10.07.2001)

Name and mailing address of the ISA/KR	Authorized officer
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INTERNATIONAL SEARCH REPORT
Information on patent family members

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